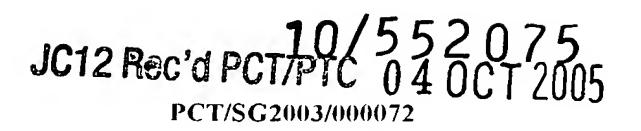
# ARTICLE 19 CLAIMS AMENDMENT



## STATEMENT UNDER ARTICLE 19(1)

Lodged herewith are replacement pages 45 and 46, which it is requested be substituted for those presently on file under Article 19.

These replacement pages add new claim 39, which is expressed in essentially the same form as claim 1 but in apparatus form. The claims as filed already define apparatuses according to the invention (cf. claim 21), but new claim 39 is narrower and is directed to that portion of the apparatus "for providing a digital image with a digital watermark". The clearest support for including a claim of this kind may be found in the introduction of the specification, where it is stated that the invention relates to "to a digital watermarking method and apparatus, of particular but by no means exclusive application in providing a digital image with a digital watermark".

Allowance of the amendment is respectfully requested.

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#### PCT/SG2003/000072

## **AMENDED CLAIMS**

[Received by the International Bureau on 9 March 2004 (29.03.04): original claims 1-38 replaced by amended claims 1-39 (2 pages)]

### + Statement

define a second set of numbers comprising transform coefficients from said transform of said image of said document; and

determining what level of correlation exists between said first and second sets of numbers;

wherein said document can be validated according to said correlation.

33. A method of checking the validity of a document over a computer network, comprising:

a user electronically submitting a document that has been provided with a watermark according to the method of claim 1, or a copy of said document, via said computer network to a verification system;

said verification system electronically checking the validity of said document according to said the watermark and legible identification information appearing on said document; and

said verification system electronically transmitting to said user or a nominated alternative user a result of said checking of said validity.

- 34. A method as claimed in claim 33, wherein said legible identification information comprises or includes a name of a person to whom said document pertains.
- 35. A method as claimed in claim 33, further including said user inputting said legible identification information.
- 36. A method as claimed in claim 33, further including said verification system employing character recognition and thereby extracting said legible identification information from said document.
  - 37. A method as claimed in claim 33, wherein said document comprises a certification of academic attainment and said legible identification information comprises or includes any one or more of: the name of the holder of said attainment and the name of said attainment.
  - 38. A method as claimed in claim 33, wherein said computer network comprises the internet or an intranet.
  - 39. An apparatus for providing a digital image with a digital watermark, comprising:

computing means operable a) to receive said digital image and an associated

identification number, b) to generate a first set of numbers using a seed for said number generation comprising or derived from said identification number, c) to apply a transform on at least a portion of said digital image, transform coefficients from said transform constituting a second set of numbers, d) to form a modified second set of numbers based on said first set and said second set, e) to substitute said modified second set for said second set in said transform to form a modified transform, and f) to apply an inverse of said transform to said modified transform to thereby produce a modified digital image; and

output means to output said modified digital image.

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